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> REPLACES: 22.08.12 REVISED: 09.05.24

#### EAT116SY

#### FITTING INSTRUCTIONS

# TOYOTA PRADO 11/09on ARC™ PROTECTION BAR WITH PARKING SENSORS AND HID HEADLIGHTS VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

Required extra tools: Jigsaw or similar, to cut bumper.

Aftermarket spotlight wiring kit (if original equipment fog lights not fitted)

- 1. Lift bonnet.
- 2. Remove grille to radiator cover, 13 push pull plastic clips.
- 3. Disconnect camera and pre- crash sensor (if fitted) on rear of grille.
- 4. Remove rubbers on top of grille by gently sliding rubber from top of plastic clips, taking care not to damage rubbers. Remove two 10mm head bolts and two plastic push pull clips from centre and outer grille. Gently pull side of grille forward to unclip, lift slightly and slide forward at base to disconnect from plastic bumper. Remove fully from vehicle. **See figures 1.**
- 5. Remove three 10mm head bolts from inner guards and pull rearward to clear bumper side.
- 6. Disconnect driving lights, parking sensors on passenger's side of vehicle (if fitted) and headlight washers on driver's side of vehicle (if fitted).
- 7. Remove bumper, one 10mm head bolt from bumper wing (per side), four 10mm head bolts from underside of plastic bumper bar, four plastic push pull clips where grille was removed. Slide fingers behind rear edge of plastic bumper to release from clip where screw was removed and gently pull side of bumper away from vehicle to remove. When released from side, pull forward to release from under headlights.
- 8. Remove centre plastic bash plate, five 10mm head bolts and one plastic push pull clip.
- 9. Using a jigsaw or sharp knife, trim plastic air dams to allow fitment of mounts. See figure 2 and 3.
- 10. On driver side: Remove one 13mm head bolt from power steering bracket between radiator support and crush can. **See figure 4.**
- 11. Using 13mm drill, enlarge holes in top and bottom of crash cans. See figure 5. In top of crash cans, enlarge holes to 18mm to accept chassis spacers. Blow all fillings clear and treat all exposed metal with a rust inhibitor.
- 12. Fit ECB Steel mounting brackets (supplied) between power steering support bracket (drivers side only) and chassis rail using M8 x 1.25 x 40 bolt, spring washer and flat washer (supplied), M12 x 1.25 x 40 bolt, spring washer and flat washer (supplied) for lower hole and 3/8 x 1 ½ bolt and washer on 300mm wire, flat washer, spring washer and nut (supplied) to rear hole through rectangular hole further rearward in chassis. **See figure 6. FINGER TIGHTEN ONLY.**



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At front of chassis, install two steel angle mounts (one top and one bottom of crash can, chassis spacers inserted into crash can assembly on fitment) (supplied). Assemble using two 3/8 x 5 bolts, flat washers, spring washers and nuts (supplied) through steel angles, chassis spacers and chassis, four 3/8 x 1 ½ bolts, flat washers, spring washers and nuts (supplied) from steel angles to ECB steel mounts.

- 13. Align mounts to vehicle and **tighten all bolts.** Trim wire from rear bolt and clamp to side of hole to avoid vibration.
- 14. Remove parking sensors from plastic bumper by releasing top and bottom clips to separate front of sensor from rear. Release side clips on front section to remove from plastic bumper.
- 15. Check area behind cut is free from hoses and wiring.
- 16. Mask area of plastic bumper to be cut using paper masking tape to avoid damage to painted surface. Using attached templates, mark plastic bumper ready for cut. See figure 7 for template placement. Cut bumper using a jigsaw or similar. CAUTION: Straightness and quality of cut will have an impact on the finish of the final product. Please take care to ensure its correctness.
- 17. Refit top section back to vehicle using original bolts as per reverse of step 7.
- 18. Fit parking sensors into ECB protection bar. Attach wiring to lower leg of channel using zip ties (supplied). **See figure 8.**
- 19. Feed vehicle end of ECB wiring harness (supplied) under headlight. Connect wiring harness to original harness using cable locks (supplied).
- 20. Connect ECB Quick Click fog light wiring harness (supplied) into original wiring harness.
- 21. Fit ECB indicator / park lights into protection bar as per instructions supplied with the LED indicator kit. **NOTE: Ensure park light is to outside. See figure 9.**
- 22. Attach ECB fog lights to protection bar. Place M6 x 20 bolts, spring washers (supplied) through light mount from inside and attach nut to top. Slide assembly into light mount in Protection bar and centralize light to hole. **TIGHTEN FIRM ONLY. See figure 10.** Where fog lights are not included on original equipment bar, an aftermarket light wiring kit will need to be installed.
- 23. Attach 6mm clip lock trim (supplied) to top of ECB protection bar. **NOTE**: Trim off lower edge on an angle so trim will sit flush with end of protection bar. **See figures 11, 12 and 13.**
- 24. Fit ECB protection bar to inside of ECB steel mounting brackets using six ½ x 1 ½ bolts, flat washers, spring washers and nuts. **FINGER TIGHTEN ONLY.**
- 25. Align ECB protection bar to vehicle. See figure 14 and 15. TIGHTEN ALL BOLTS.
- 26. Connect and check indicator / park lights and fog lights.
- 27. Connect and check original equipment camera and parking sensors.
- 28. Fit ECB outer alloy under body guards to external wing sections of protection bar. Place front of under body guard to top of skirt of protection bar, fit using four M6 x 20 bolts, flat washers and nyloc nuts (supplied) (three to front, one to rear, through protection bar, under body guard and inner guard)(per side). **See figure 16.** Trim inner guard level with bottom of under body guard and place neatly onto inside. Using under body guard



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as a guide, drill holes on lower lip through inner guard with a 6mm drill. Attach using two M6 x 20 bolts, flat washers and nyloc nuts (supplied). **TIGHTEN ALL BOLTS.** 

29. Fit inner under body guard to top of protection bar skirt using three M6 x 20 bolts, flat washers and nyloc nuts (supplied). ECB under body guard bolts to original steel bash plate using original bolts to outside and push pull plastic clip to centre. **See figure 17. TIGHTEN ALL BOLTS.** 

#### ENSURE NUMBER PLATE IS CLEARLY VISABLE

**Note:** When fitting/refitting the licence plate to the vehicle, ensure there is no obstruction to licence plate vision in accordance with local authorities. If required relocate licence plate to an alternate location.

#### **Further VFPS Notes:**

- a) Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts).
- b) Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.
- c) Do not remove the plaque or label from the VFPS.
- d) Do not modify the structure of the VFPS in any way.
- e) No accessory or fitment should project forward of the VFPS forward profile.
- f) ENSURE THESE INSTRUCTIONS ARE LEFT WITH VEHICLE OWNER AND/OR OPERATOR.

#### IMPORTANT INFORMATION

Periodically check bolts and nuts for correct tightness, especially if travelling on rough roads

#### **FITTING KIT**

1 – Pair steel mounting brackets	16 - 3/8 nuts			
4 – Steel angle brackets	$6 - \frac{1}{2} \times 1 \frac{1}{2}$ bolts (2 bolts to be left out for packaging)			
4 – 81mm long 10 Nb Steel spacer tubes	$12 - \frac{1}{2}$ flat washers (4 washers to be left out for packaging)			
1 – Pair side under body skirts	6 − ½ spring washers			
1 – Centre under body skirt	$6 - \frac{1}{2}$ nuts (2 nuts to be left out for packaging)			
2 – M12 x 1.25 x 40 bolts	2 – M6 nuts and spring washers			
2 – M12 flat washers	17 – M6 x 20 bolts			
2 – M12 spring washers	32 – M6 flat washers			
2 – M8 x 1.25 x 40 bolts	15 – M6 nyloc nuts			
2 – M8 spring washers	1 – ECB LED Indicator / Park light kit			
2 – M8 flat washers	6 – Cable locks			
$2 - 3/8 \times 1 \frac{1}{2}$ bolts and washers on 300 mm wire	1 – Pair ECB fog lights			
$8 - 3/8 \times 1 \frac{1}{2}$ bolts	1 – Quick Click Fog Harnesses (IC10D40S1004ECBH)			
$4-3/8 \times 5$ bolts	2 – Fog light surrounds			
26 – 3/8 flat washers	1 – 2700mm length 6mm clip lock			
16 - 3/8 spring washers	15 – 150mm zip ties			

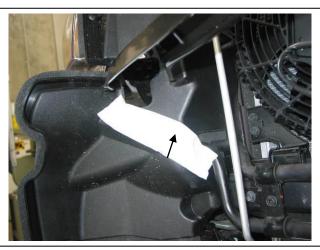
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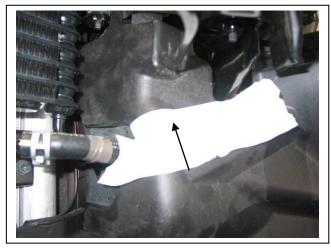
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**Figure 1:** Rubber on top of grille. Take care during removal not to split rubber



**Figure 2:** Trim point on driver's side air dam, just below head light



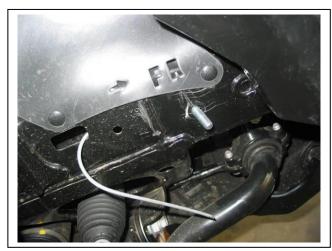
**Figure 3:** Trim point on passenger's side air dam, just below headlight



**Figure 4:** Side of driver's side chassis rail (bolt removed)

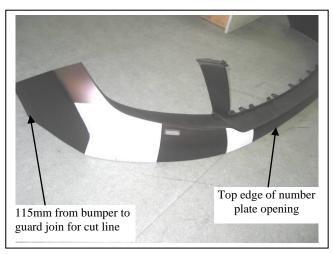


**Figure 5:** Drill holes to 10mm (3/8). Drill or die grind top to 18mm.



**Figure 6:** Rear bolt on wire fitted before mount is assembled for photo

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**Figure 7:** Position of templates on bumper



**Figure 8:** Parking sensor mounted into protection bar with secured wiring.

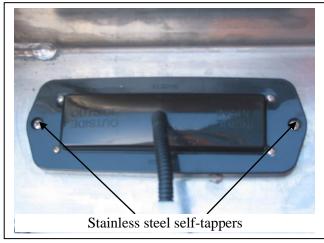
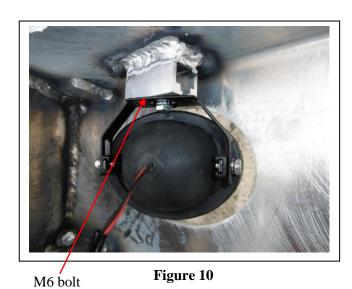


Figure 9



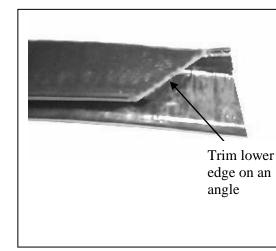
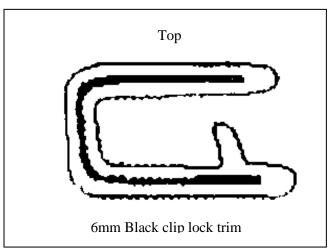


Figure 11 Figure 12



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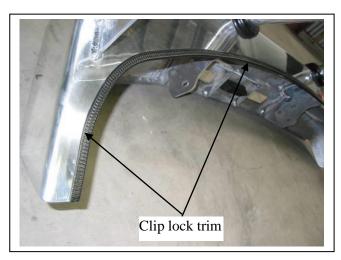


Figure 13



Figure 15: Front view



Figure 17: Centre under body guard fitted.

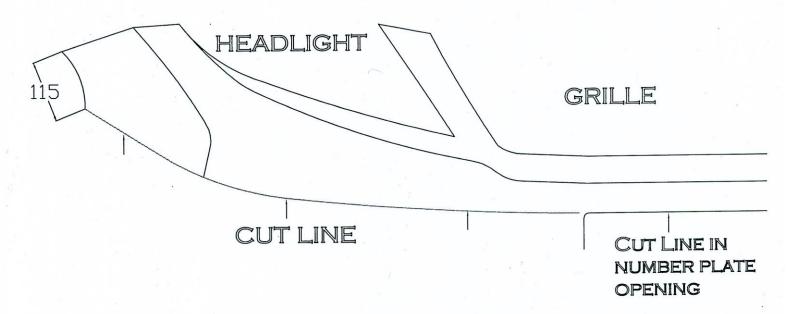


Figure 14: Front view



Figure 16: Passengers side under body guard

## **CUT TEMPLATES**



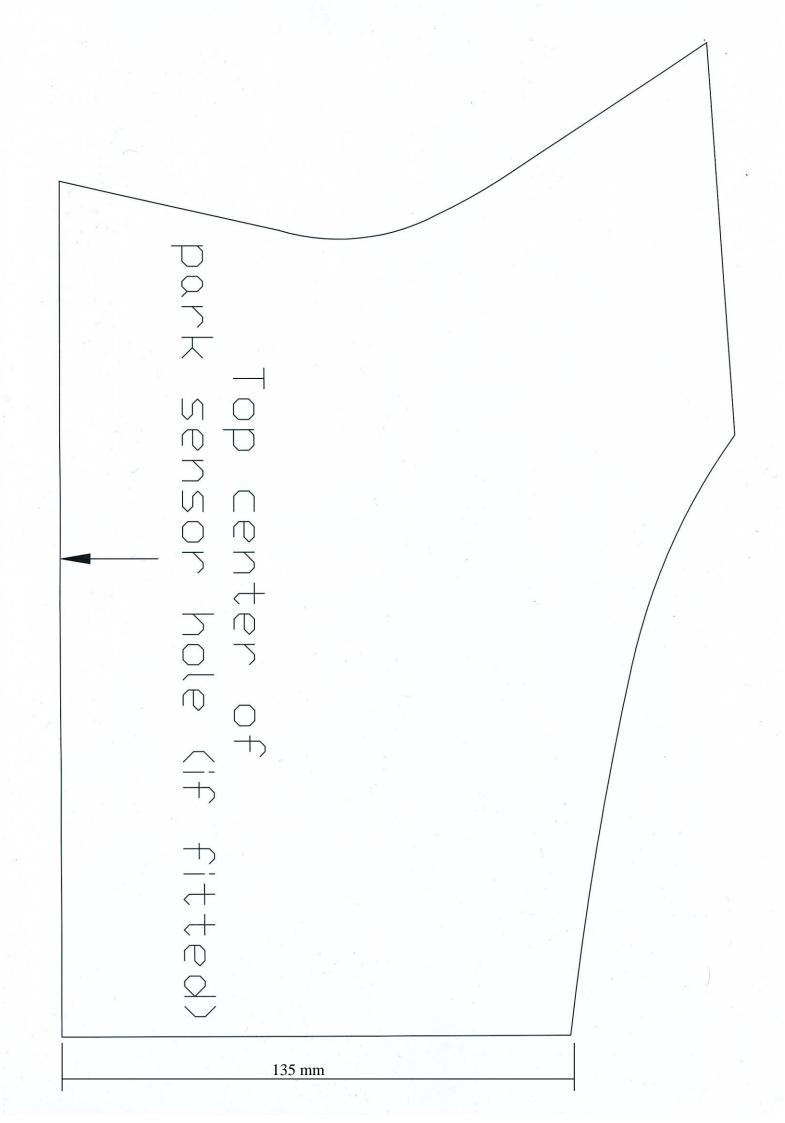
CAUTION: Measure template to ensure correct size, some printers may vary.



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## We value your comments

Dear Fitter,

ECB would like to know how you went with the installation of this product. We value your comment and may need to contact you to clarify some details so please complete your contact details clearly.

We would appreciate if you could complete as many of the following details as possible.

Your Name:	Your contact No.		
Product Part No.	Product Invoice No.		
Product Description:	Make, model, and year of vehicle:		
Product Work Order No.	Company your from/Company product purchased from:		
Date of Fitment:// Was the fitting hardware supplied complete?	Yes No		
If no what was not supplied			
Did the installation go well?	Yes No		
Please provide comments			
Please draw diagrams if you need to.			

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## **DESPATCH CHECKLIST**

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